## CLAIMS -

What is claimed is:

1. A humidistat comprising:

an air inlet defining a beginning of an airflow path through the humidistat;

a humidity sensor for enabling measurement of the humidity of air flowing along the airflow path;

a baffle;

a heat source for heating air along a portion of the airflow path;

said baffle and said heat source cooperating to define two zones in the humidistat, wherein during operation of the humidistat, the air temperature is higher in one zone than in the other zone, and wherein the higher air temperature zone is downstream from the lower air temperature zone in the airflow path; and

an air outlet defining an end of the airflow path.

- 2. A humidistat according to claim 1, wherein the humidistat is for regulating the humidity of a piano.
- 3. A humidistat according to claim 1, wherein when the humidistat is in use, air flowing along the airflow path enters the humidistat through the air inlet, flows substantially downward through the lower air temperature zone, is heated by the heat source, flows substantially upward through the higher air temperature zone, and exits the humidistat through the air outlet.
- 4. A humidistat according to claim 1, wherein the heat source is electrical circuitry for having electricity flowing therethrough.
- 5. A humidistat according to claim 4, wherein at least a portion of the electrical circuitry is mounted on a printed circuit board.

- 6. A humidistat according to claim 1, wherein the humidity sensor is oriented in the lower air temperature zone of the humidistat and upstream from the heat source in the airflow path.
  - 7. A humidistat for regulating the humidity of a piano, comprising: an air inlet defining a beginning of an airflow path through the humidistat;
- a humidity sensor for enabling measurement of the humidity of air flowing along the airflow path;

a baffle;

a heat source for heating air along a portion of the airflow path;

said baffle and said heat source cooperating to define two zones in the humidistat, wherein during operation of the humidistat, the air temperature is higher in one zone than in the other zone, and wherein the higher air temperature zone is downstream from the lower air temperature zone in the airflow path; and

an air outlet defining an end of the airflow path.

- 8. A humidistat according to claim 7, wherein when the humidistat is in use, air flowing along the airflow path enters the humidistat through the air inlet, flows substantially downward through the lower air temperature zone, is heated by the heat source, flows substantially upward through the higher air temperature zone, and exits the humidistat through the air outlet.
- 9. A humidistat according to claim 7, wherein the heat source is electrical circuitry for having electricity flowing therethrough.
- 10. A humidistat according to claim 9, wherein the electrical circuitry is mounted on a printed circuit board.

- 11. A humidistat according to claim 7, wherein the humidity sensor is oriented in the lower air temperature zone of the humidistat and upstream from the heat source in the airflow path.
  - 12. A humidistat for regulating the humidity of a piano, comprising: an air inlet defining a beginning of an airflow path through the humidistat;

a humidity sensor for enabling measurement of the humidity of air flowing along the airflow path;

a baffle;

electrical circuitry for having electricity flowing therethrough to heat air along a portion of the airflow path;

said baffle and said electrical circuitry cooperating to define two zones in the humidistat, wherein during operation of the humidistat, the air temperature is higher in one zone than in the other zone, and wherein the higher air temperature zone is downstream from the lower air temperature zone in the airflow path; and

an air outlet defining an end of the airflow path;

wherein when the humidistat is in use, air flowing along the airflow path enters the humidistat through the air inlet, flows substantially downward through the lower air temperature zone, is heated by the electrical circuitry, flows substantially upward through the higher air temperature zone, and exits the humidistat through the air outlet.

- 13. A humidistat according to claim 12, wherein the electrical circuitry is mounted on a printed circuit board.
- 14. A humidistat according to claim 12, wherein the humidity sensor is oriented in the lower air temperature zone and upstream from the electrical circuitry in the airflow path.
  - 15. A humidistat for regulating the humidity of a piano, comprising: an air inlet defining a beginning of an airflow path through the humidistat;

a humidity sensor for enabling measurement of the humidity of air flowing along the airflow path;

means for defining a lower air temperature zone and a higher air temperature zone along the airflow path, wherein the higher air temperature zone is downstream from the lower air temperature zone in the airflow path; and

an air outlet defining an end of the airflow path.

- 16. A humidistat according to claim 15, wherein the defining means comprises a baffle cooperating with a heat source.
- 17. A humidistat according to claim 16, wherein the heat source is electrical circuitry for having electricity flowing therethrough.
- 18. A humidistat according to claim 17, wherein the electrical circuitry is mounted on a printed circuit board.
- 19. A humidistat according to claim 16, wherein when the humidistat is in use, air flowing along the airflow path enters the humidistat through the air inlet, flows substantially downward through the lower air temperature zone, is heated by the heat source, flows substantially upward through the higher air temperature zone, and exits the humidistat through the air outlet.
- 20. A method for regulating the humidity of a piano, said method comprising the steps of:

providing a humidistat comprising: an air inlet defining a beginning of an airflow path through the humidistat; a humidity sensor for enabling measurement of the humidity of air flowing along the airflow path; a baffle; a heat source for heating air along a portion of the airflow path; said baffle and said heat source cooperating to define two zones in the humidistat, wherein during operation of the humidistat, the air temperature is higher in one zone than in the

other zone, and wherein the higher air temperature zone is downstream from the lower air temperature zone in the airflow path; and an air outlet defining an end of the airflow path; and

urging air along the airflow path such that air flowing along the airflow path enters the humidistat through the air inlet, flows substantially downward through the lower air temperature zone, is heated by the heat source, flows substantially upward through the higher air temperature zone, and exits the humidistat through the air outlet.